



Operating Instructions

Colour Television

FASTEXT

Panasonic

Please read these instructions completely, before operating this set.

TQB8E0504

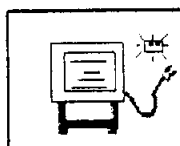
Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you have many years of enjoyment from your new colour television set.

Warnings and Precautions



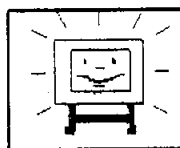
This TV set is designed to operate on AC 240V, 50Hz. It is exclusively for broadcast system PAL I. (U.K. Standard)



Remove the mains plug from the wall socket when the TV set is not used for a prolonged period of time, especially when retiring at night.

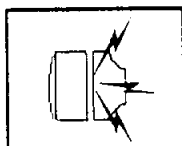


To prevent damage which might result in electric shock or fire, do not expose this TV set to rain or excessive moisture.



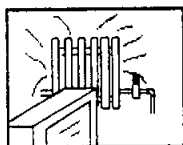
CABINET AND PICTURE TUBE CARE

Remove the mains plug from the wall socket. The cabinet and picture tube can be kept in good condition by simply wiping with a clean, soft cloth moistened with mild detergent and water. Do not use solutions containing benzol or petroleum.



WARNING: HIGH VOLTAGE !!!

Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside.



Avoid exposing the TV set to direct sunlight and other sources of heat.



Adequate ventilation is essential to prevent failure of electrical components.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

BLUE: NEUTRAL BROWN: LIVE

As the colours of the wires in this mains lead may not correspond to the markings identifying the terminals in your plug, proceed as follows:

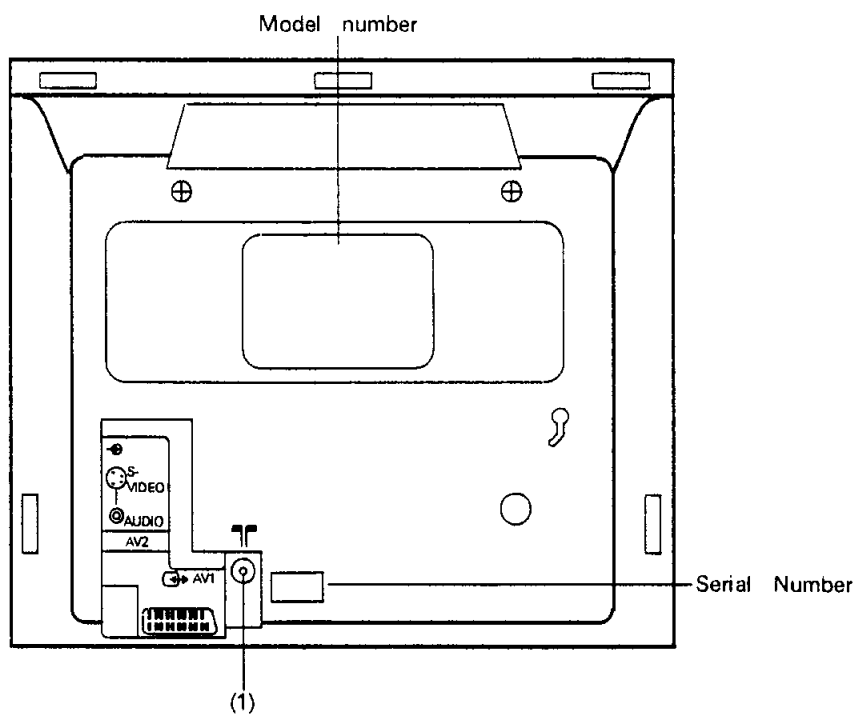
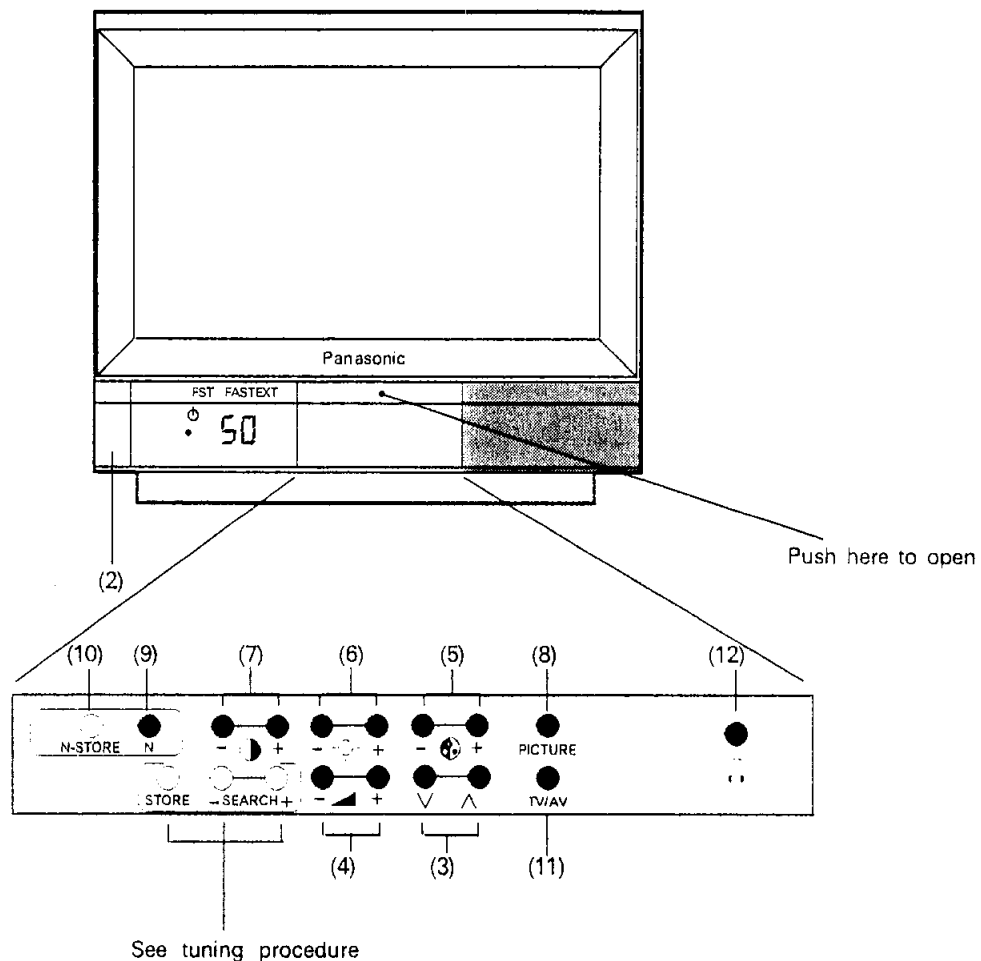
1. The BLUE wire must be connected to the terminal marked 'N' or coloured black.
2. The BROWN wire must be connected to the terminal marked 'L' or coloured red.

If a 13 amp BS1363 plug is used a 5 amp rating fuse must be fitted.

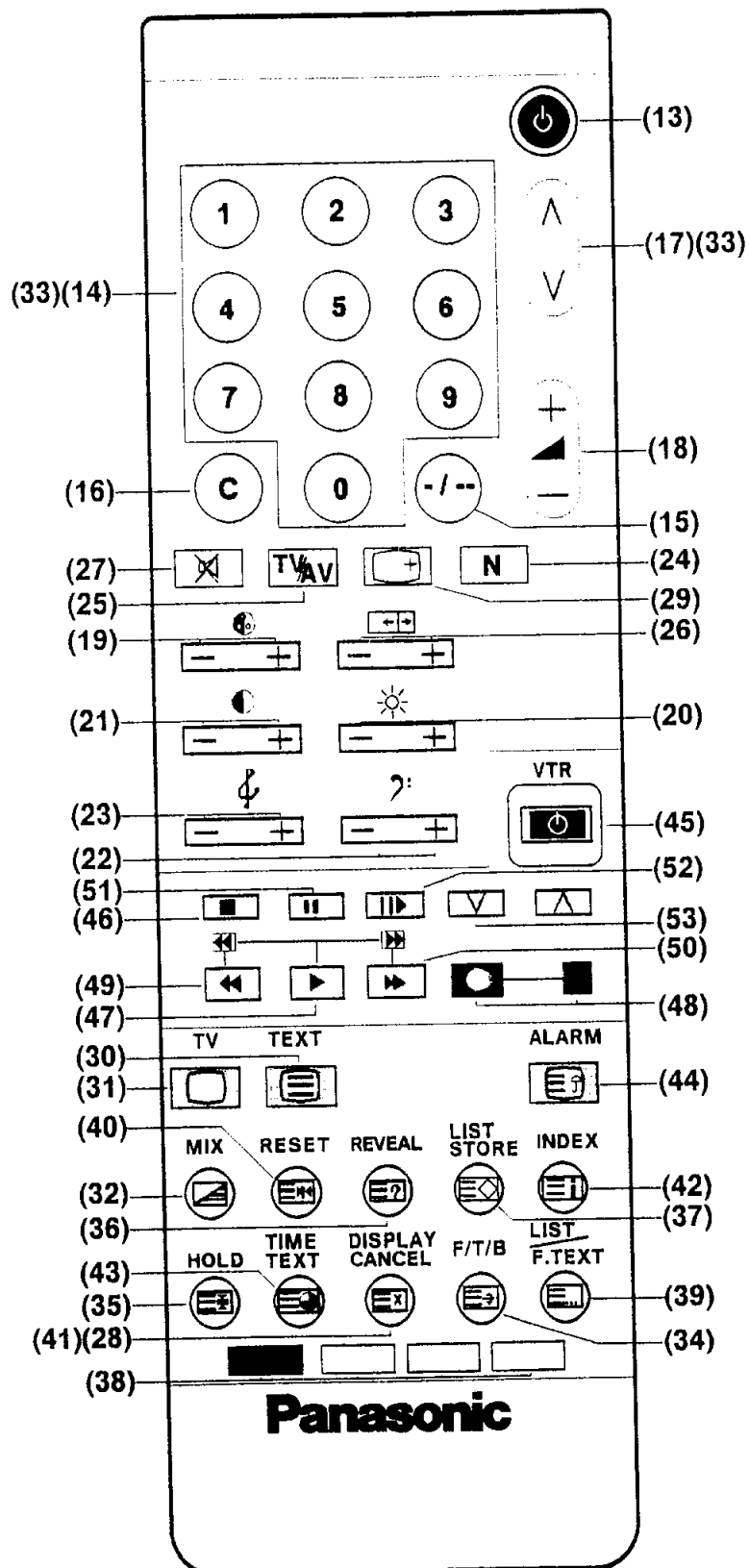
Contents

Location of Controls	2	Remote Control Operation for TV	9
Remote Control Transmitter	3	Remote Control Operation for Teletext	12
Connections	4	Remote Control Operation for VTR	17
Battery Installation and Replacement	5	21 Pin Terminal Explanation	18
Audio / Video Connections	6	General Information	19
Tuning Procedure	7	Trouble Shooting	20
Operation of TV Controls	8	Specifications	20

Location of Controls



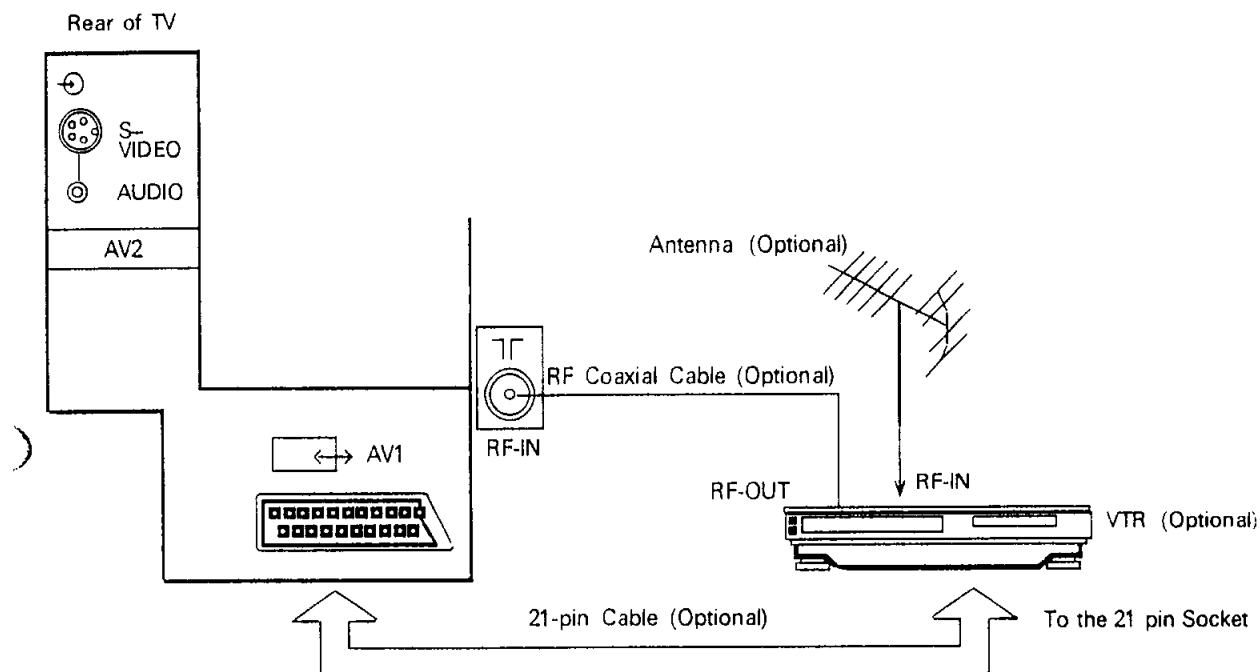
Remote Control Transmitter



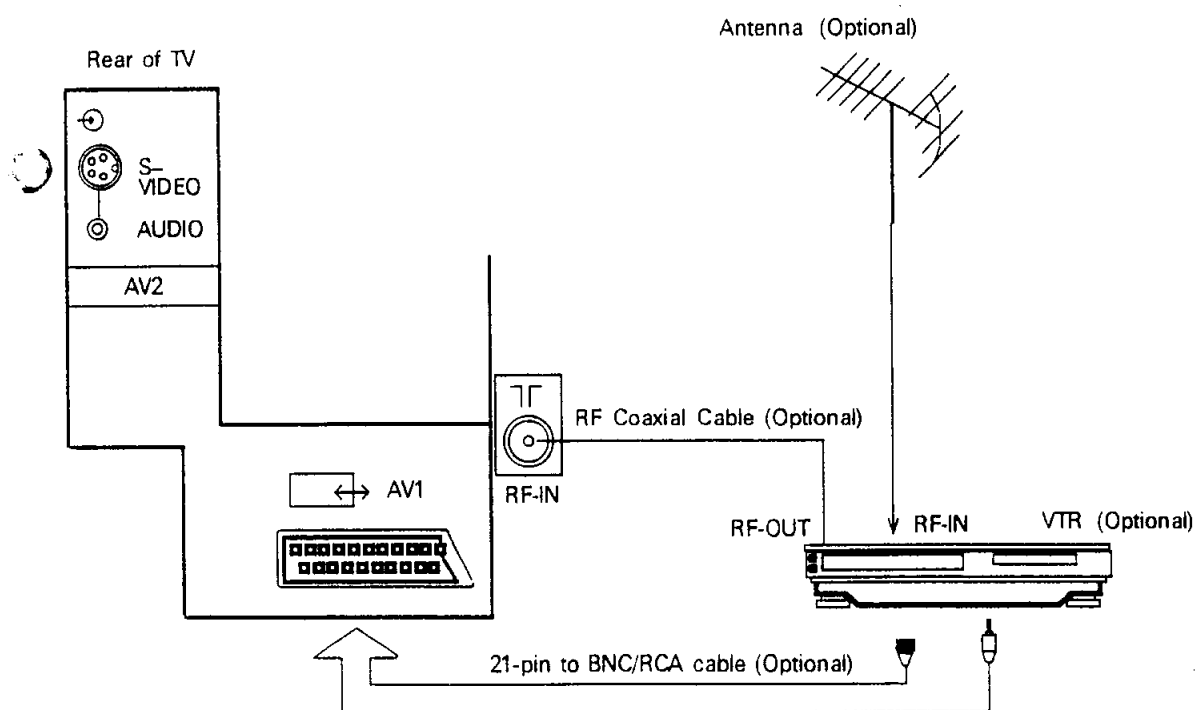
Remote Control Transmitter : TNQ8E0431

Connections

To VTR equipped with 21 pin terminal

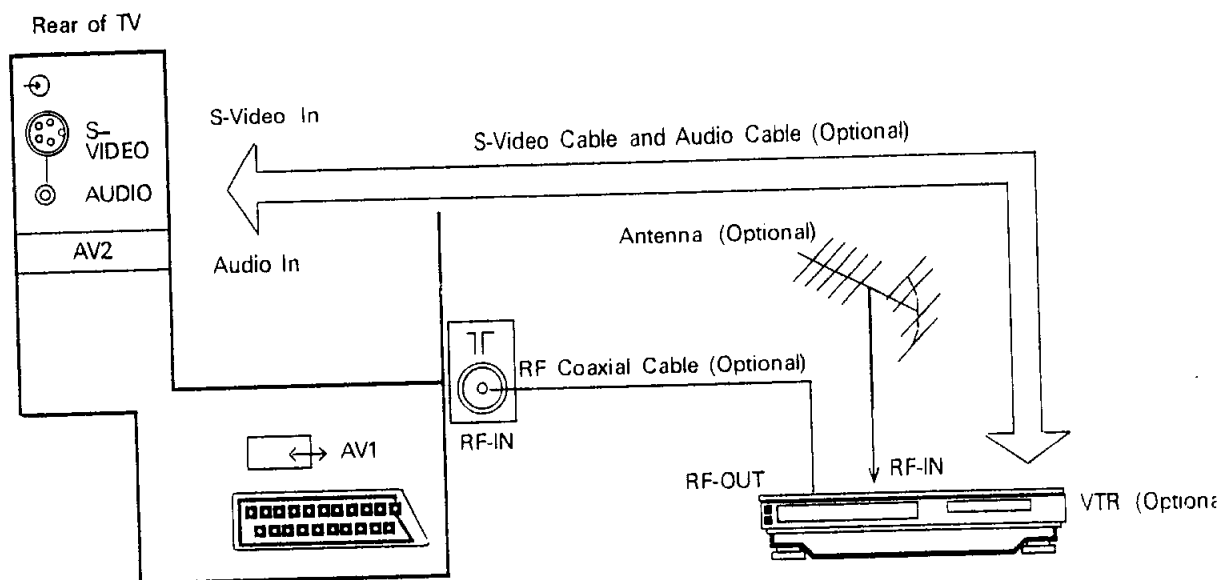


To VTR not equipped with 21 pin terminal or S-VHS 4 Pin Terminal



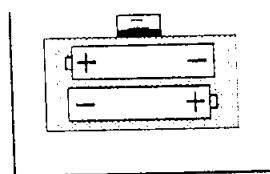
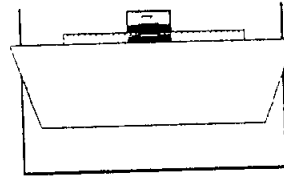
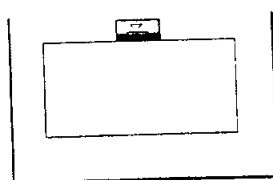
Connections

To VTR equipped with S-Video (S-VHS) 4 Pin Terminal



Battery Installation and Replacement (Remote Control Transmitter)

Batteries: Use two 'R6' or 'UM-3' dry cells (supplied).



1. Remove the battery compartment lid.

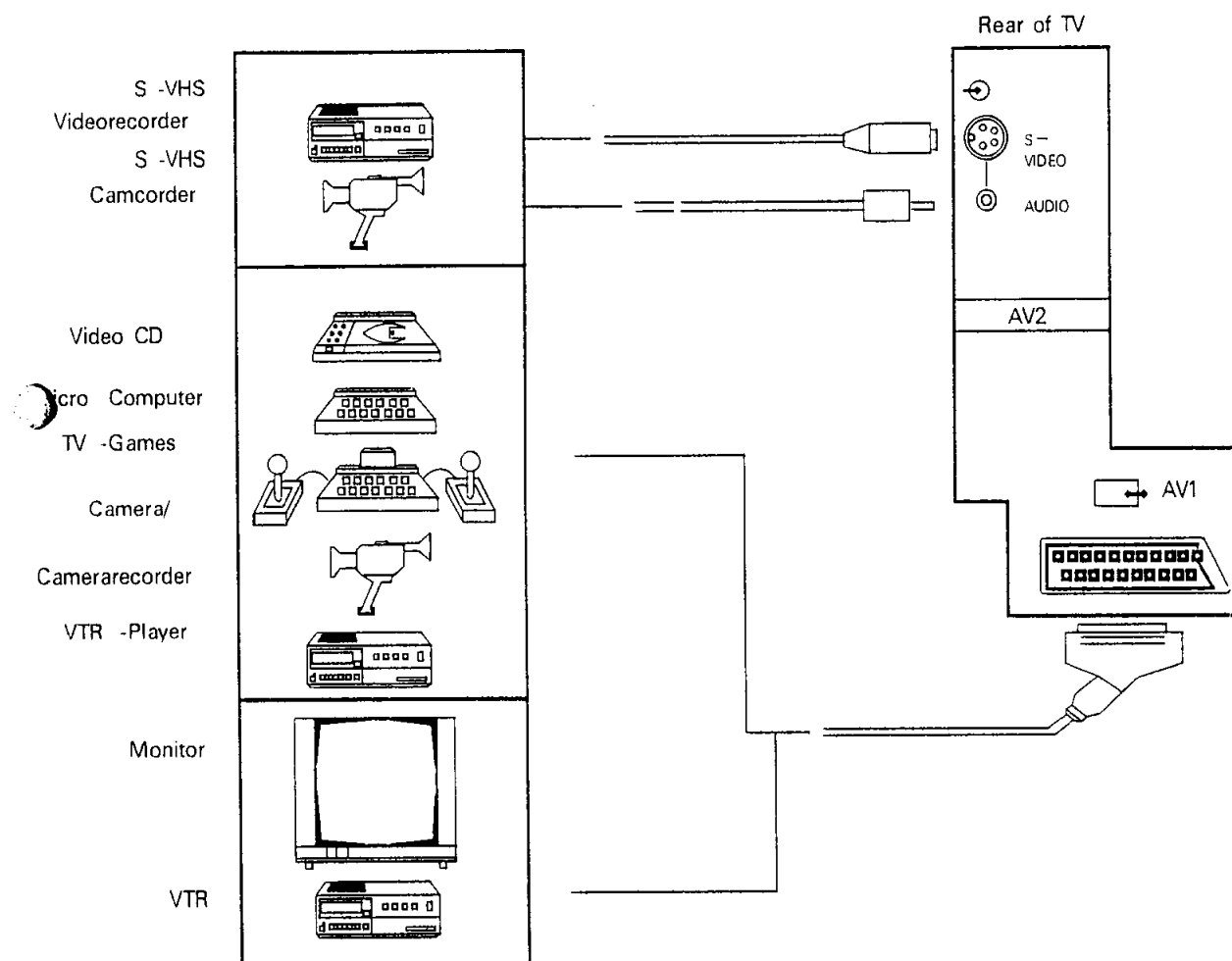
2. Insert the batteries correctly as indicated by the (+) and (-) symbols.

3. Replace the cover.

BATTERY PRECAUTIONS

1. Do not use an old battery with a new one.
2. Ensure the batteries are inserted correctly.
3. Do not use rechargeable (Ni-Cad) batteries. They are partially different in shape and performance and may not ensure the desired function.

Audio / Video Connections



Note.

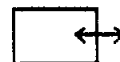
1. Do not connect a computer with TTL output (5V) to this TV set.
2. RGB Input from a Computer or TV game via the 21 pin AV1 terminal has priority over other AV Inputs and TV programmes, i.e. the TV game Input will be viewed on the programme position selected at that time or the AV position previously selected. RGB input will not be synchronised until the TV/AV button is pressed to select AV1 mode.

Important note: RGB signal must comply with 'CENELEC' standard, i.e. signal consisting of RGB, Composite video for synchronisation, STATUS RGB for switching.

This symbol indicates INPUT only.



This symbol indicates INPUT and OUTPUT



Tuning Procedure

Please refer to location of controls on page 2.

Programme Positions

Note:

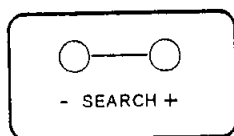
There are 50 programme positions available i.e. 50 positions on which to store different channels. Programme positions can be selected in a number of ways (see below).

Operation

Method 1.

Select a programme position (1-50), using the programme up/down buttons on the TV or remote control.

Press the SEARCH up or down buttons until the desired channel is received.



Press the STORE button to store this channel in the TV's memory.



Repeat this procedure, using different programme positions to store other channels.

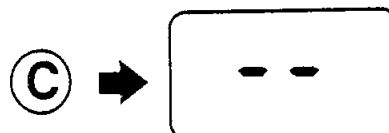
Method 2.

(If channel numbers are known)

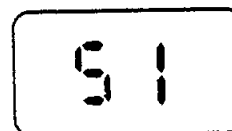
Select a programme position (1-50).

Press the button marked 'C' on the remote control.

The display will now show '- -'.



Enter the desired channel number, e.g. to receive channel 51, push buttons '5' and '1' consecutively.



Press the STORE button to store this channel in the TV's memory.



Repeat this procedure, using different programme positions to store other channels. Consult your dealer about the channel numbers for your area.

Operation of TV Controls

Please refer to location of controls on page 2.

(1) Aerial Connection

Connect the aerial lead to the socket marked 'T' at the rear of the TV.

(2) Power Switch

Push to switch the TV on, push again to switch off.

(3) Programme Up/Down

Press once to increase or decrease the programme position by one.

(4) Volume Up/Down

Press the '+' button to increase the sound level.
Press the '-' button to decrease the sound level.
Displayed on screen as a Green bar.

(5) Colour Up/Down

Press the '+' button to increase the colour level.
Press the '-' button to decrease the colour level.
Displayed on screen as a Red bar.

(6) Brightness Up/Down

Press the '+' button to increase the brightness level.
Press the '-' button to decrease the brightness level.
Displayed on screen as a White bar.

(7) Contrast Up/Down

Press the '+' button to increase the contrast level.
Press the '-' button to decrease the contrast level.
Displayed on screen as a Cyan bar.

(8) Picture Control

Turn left or right for a softer or sharper picture.

(9) Normalisation

If levels of volume, brightness, colour, contrast, bass and treble have been altered, they can be set back to their stored levels, by pressing this button.

(10) Normalisation Store

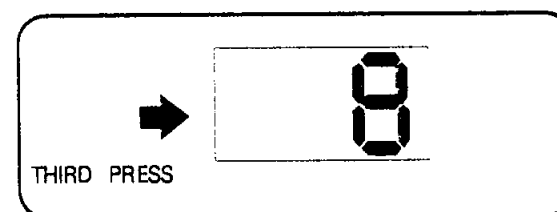
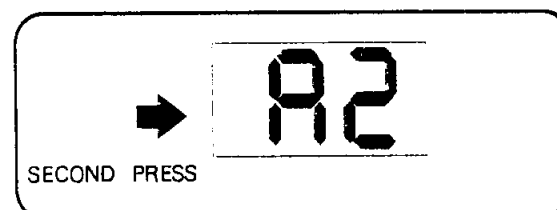
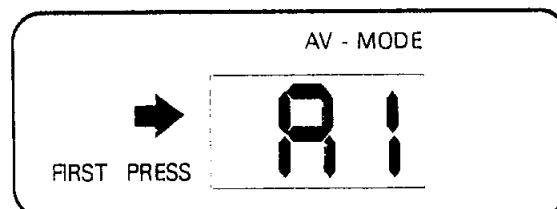
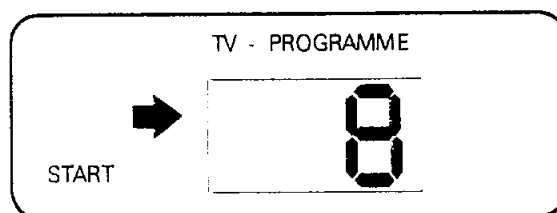
Adjust the volume, brightness, colour, contrast, bass and treble to normal viewing levels. Press this button to store these levels in the TV memory.

(11) TV/AV Selection

Terminals are available at the rear of the TV for direct audio/video inputs or outputs. To select these terminals, press the TV/AV button. This selects AV1, press again to select AV2, press again to return to TV mode.

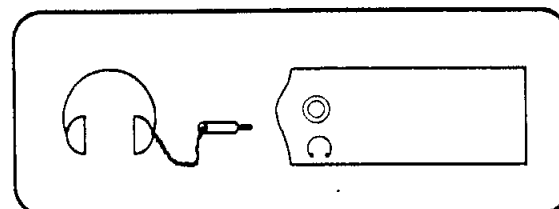
AV2 has a connection for VTR's equipped with Super VHS (S-VHS); refer to your VTR operating instructions for full details.

Examples of AV connections are shown on pages 4,5 and 6.



(12) Headphones

A 3.5mm stereo headphone socket is available for the connection of a pair of 8-300 Ohm impedance headphones. The TV speaker will be automatically disconnected while the headphones are connected.

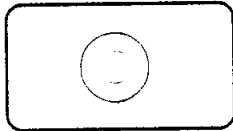


Remote Control Operation for TV

Please refer to the remote control diagram on page 3.

(13) Standby

Press this button to switch the TV. off for short periods. Press again to switch on, or select a programme position from 1-50.



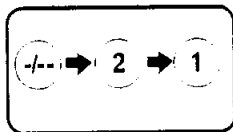
(14) Prog./Channel/Page Selection

Press these buttons to select programme positions, channel numbers or Teletext pages.



(15) Programme Position 10 - 50

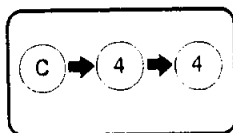
To select double figure programme positions (10-50), press this button and then enter the programme position number using buttons 0-9.



(16) Direct Channel Selection

Press this button, the display will now show 'C'. Now enter the channel number, using buttons 0-9 on the keyboard. To select channel number 44, press buttons '4' and '4' consecutively.

NOTE: The channel number indication changes back to the previously selected programme position number.



(17) Programme Up/Down

Press the up/down buttons to increase/decrease the programme position by one.



(18) Volume Up/Down

Press the '+' button to increase the sound level. Press the '-' button to decrease the sound level. Displayed on screen as a Green bar.



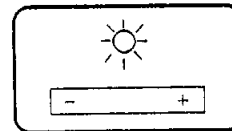
(19) Colour Up/Down

Press the '+' button to increase the colour level. Press the '-' button to decrease the colour level. Displayed on screen as a Red bar.



(20) Brightness Up/Down

Press the '+' button to increase the brightness level. Press the '-' button to decrease the brightness level. Displayed on screen as a White bar.



(21) Contrast Up/Down

Press the '+' button to increase the contrast level. Press the '-' button to decrease the contrast level. Displayed on screen as a Cyan bar.

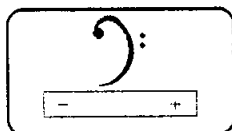


Remote Control Operation for TV

Please refer to the remote control diagram on page 3.

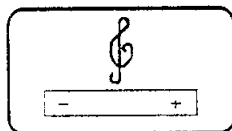
(22) Bass Up/Down

Press the '+' button to increase the bass level.
Press the '-' button to decrease the bass level.
Displayed on screen as a Blue bar.



(23) Treble Up/Down

Press the '+' button to increase the treble level.
Press the '-' button to decrease the treble level.
Displayed on screen as a Yellow bar.



(24) Normalisation

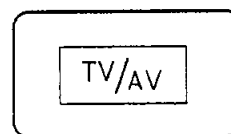
If levels of volume, brightness, colour, contrast, bass and treble have been altered, they can be set back to their stored levels, by pressing this button.



(25) TV/AV Selection

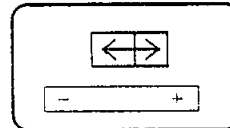
Terminals are available at the rear of the TV for direct audio/video inputs or outputs. To select these terminals, press the TV/AV button. This selects AV1, press again to select AV2, press again to return to TV mode.

AV2 has a connection for VTR's equipped with Super VHS (S-VHS) ; refer to your VTR operating instructions for full details.



(26) Fine Tune

Press the fine tune (+) or (-) buttons for best reception.



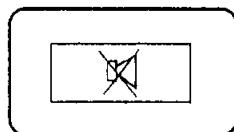
Remote Control Operation for TV

Please refer to the remote control diagram on page 3.

(27) Sound Mute

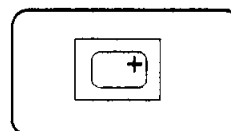
Press this button to mute the sound. To restore the sound, perform any one of the following:

- (a) Press the sound mute button again.
- (b) Press the STANDBY button to set the TV in the standby condition, then press again.
- (c) Press the VOLUME up or down buttons.
- (d) Press the PROGRAMME up or down buttons.
- (e) Press the NORMALISATION button.
- (f) Press the PROGRAMME select buttons 0 - 9.



(29) Status

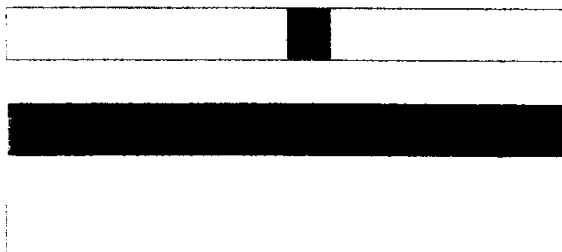
Press this button, the screen will now show the programme position at the top left, the time at the top right and the name of the Teletext if transmitted. If the Panasonic alarm has been set, then the time remaining will be shown in place of the Teletext name. The channel number will be displayed on the programme indicator.



(28) Display Cancel

The levels of colour, contrast etc, have an on screen indicator to show which level they are set at. The level is indicated by a black box within a coloured bar. Press this button in the TV mode, the indicator 'bar' will display in RED or BLACK.

RED = indicator ON. BLACK = indicator OFF.



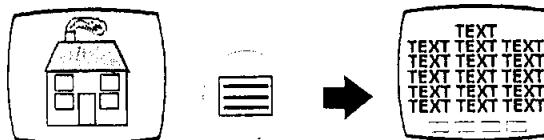
Remote Control Operation for Teletext

Please refer to the remote control diagram on page 3.

(30) Text

Press this button to change from TV to Teletext mode.

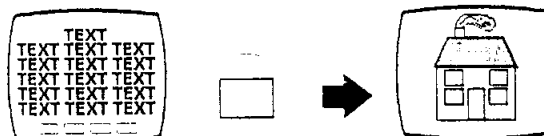
NOTE: Teletext information is only available if the channel selected is transmitting Teletext.



(31) TV

Press this button to change back to TV mode.

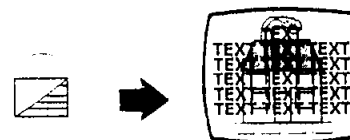
NOTE: Pressing the 'N' button will also change back to TV mode.



(32) Mix

Press this button to superimpose Teletext pictures onto the TV display.

NOTE: Unless the sound is muted, it will be present in TEXT, TV or MIX modes. Press the 'TV' or 'N' button to return to TV mode.

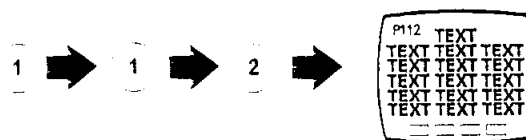


(33) Page Selection

Pages can be selected in two ways:

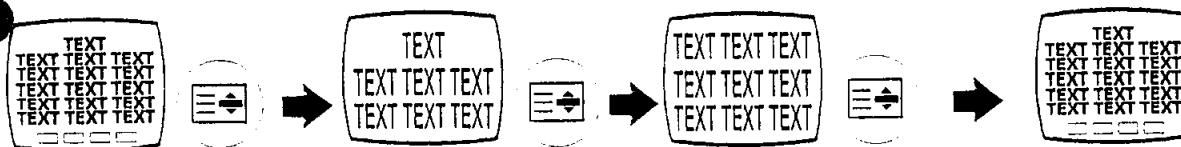
(a) By entering the page number directly, using buttons 0-9 on the remote control.

(b) By using the programme up/down buttons to increase or decrease the page number by one.



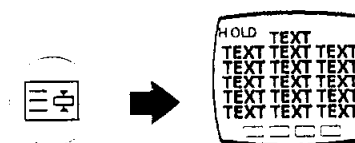
(34) Top/Bottom/Full

Press this button to expand the TOP half of the display. Press again to expand the BOTTOM half of the display. Press again to return the display to normal (FULL) size.



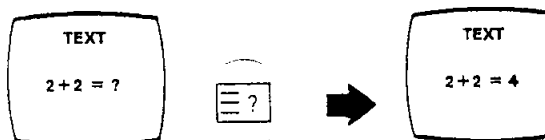
(35) Hold

When Teletext information exceeds more than one page, the display changes automatically to the next page. To hold a particular page, press this button. The word 'HOLD' will appear at the top left of the screen. This display will remain until the HOLD button is pressed again.



(36) Reveal

Press this button to reveal hidden words e.g. quiz pages with hidden answers. Press again to hide the word.



Remote Control Operation for Teletext

Please refer to the remote control diagram on page 3.

(37) List Store

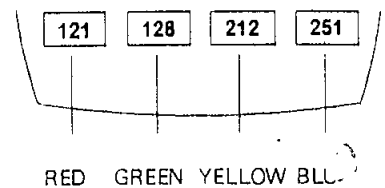
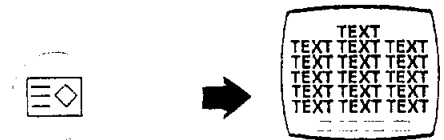
In this mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. To do this, press any one of the coloured buttons on the remote control, this will select the number to be changed. Then enter the new page number to be stored, using buttons 0-9 on the remote control.

NOTES:

1) When first switching to LIST STORE mode, the page number coloured RED will be automatically selected. Press and hold the LIST STORE button until the page numbers change to WHITE indicating that the number is now stored in the TV memory.

2) All four page numbers will be stored at the same time. This facility enables the customer to store four different page numbers on 10 programme positions. This means that up to forty Teletext page numbers can be stored in the TV memory. (PROGRAMMES 1 - 10 ONLY).

These pages will remain in the memory, even when switching off. If there is no page number matching the entered number then the number selected will keep flashing.



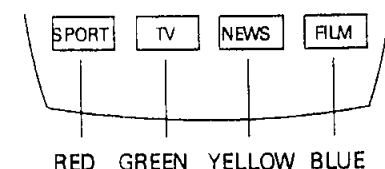
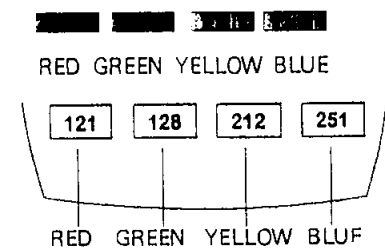
(38) Red/Green/Yellow/Blue Buttons

These four buttons are colour-coded to correspond to the differently coloured subjects in 'FASTEXT' mode. In 'LIST STORE' mode, they correspond to the differently coloured page numbers.

(39) List/F.text

Press this button to change from LIST mode to FASTEXT mode and vice versa. In FASTEXT mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information of the subjects shown.

NOTE: These subjects are determined by the broadcasting authorities and cannot be changed by the customer.



(40) Reset

Pressing this button in the FASTEXT mode will reset the present page back to the index page. Pressing this button in the LIST STORE mode resets the present page to the RED coloured page number.



Remote Control Operation for Teletext

Please refer to the remote control diagram on page 3.

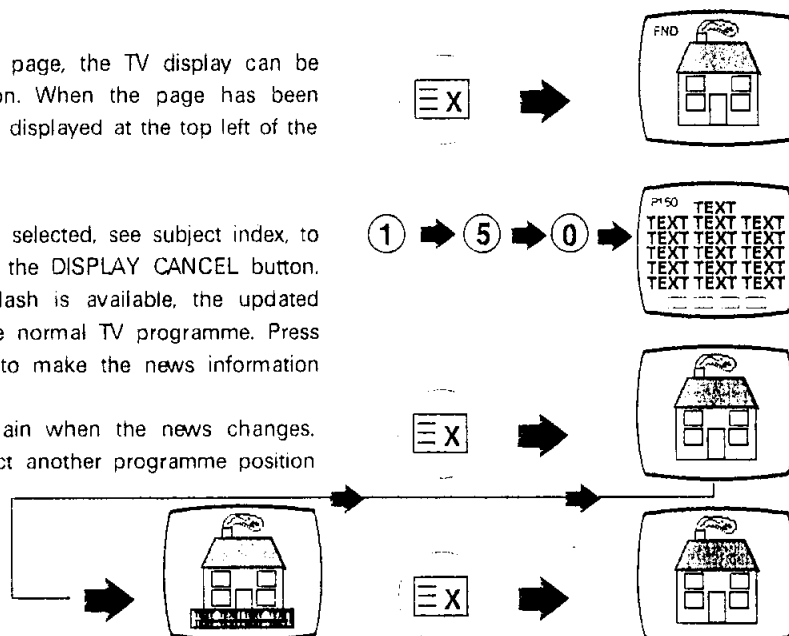
(41) Display Cancel

While searching for a Teletext page, the TV display can be viewed by pressing this button. When the page has been found, the 'FND' symbol will be displayed at the top left of the screen.

News Flash

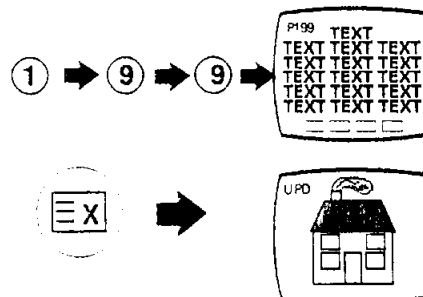
If a news flash page has been selected, see subject index, to view the TV programme press the DISPLAY CANCEL button. Every time an updated newsflash is available, the updated news item will appear over the normal TV programme. Press the DISPLAY CANCEL button to make the news information disappear.

Updated news will appear again when the news changes.
Note: It is not possible to select another programme position in NEWS FLASH mode.



Update

Certain Teletext pages contain information which is constantly being updated or information containing several pages. If you have selected one of these pages, press the DISPLAY CANCEL button to view normal TV. When the page information changes, the symbol 'UPD' will be displayed at the top left of the screen. To view the updated page press the TEXT button, the page will disappear when the DISPLAY CANCEL button is pressed.



(42) Index

Push this button, in FASTEXT mode, to return to the main index page. Depending on the way information is transmitted by each TV channel, this INDEX button may need to be pushed more than once to return to the main index page.



Remote Control Operation for Teletext

Please refer to the remote control diagram on page 3.

(43) Time Text

This function is used for selected pages only e.g. The Teletext alarm page. Refer to the subject index page for page location.

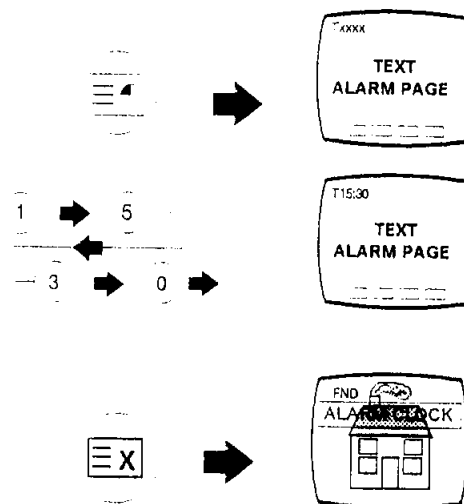
- 1) Select the TELETEXT alarm page.
- 2) Press the TIME TEXT button. Txxx will be displayed at the top left of the screen; now enter the time at which this alarm page should be displayed using buttons 0-9 on the remote control.

THIS FEATURE USES A 24 HOUR CLOCK.

EXAMPLE: To set the alarm for 3.30 PM; press buttons 1,5,3,0 consecutively, the Txxx display will change to T15:30 momentarily, then return to the current page number. If in LIST STORE mode the letter 'T' will appear in the current coloured box at the bottom of the screen indicating that the alarm page has been set.

Press the DISPLAY CANCEL button to view TV. At 3.30pm the alarm page will be displayed.

To cancel this feature press the TV button to return to normal viewing, the TEXT button if you wish to select other teletext pages or press the RESET button.

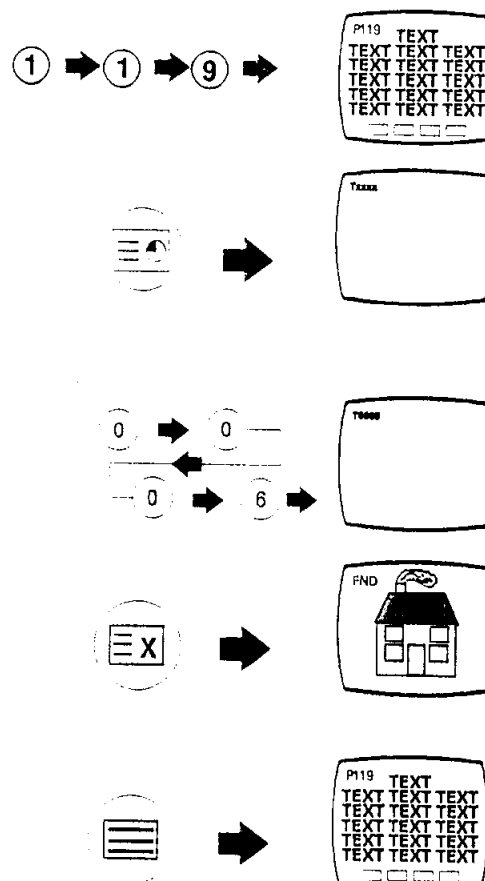


Sub-coded page access (Time Text button)

When Teletext information exceeds more than one page, it may take some time for the automatic changing of the sub- pages to reach the sub-page you require. It is possible to enter your required sub-page and continue watching the normal programme until the correct sub-page is found.

- 1) Select the required Teletext page using buttons 0-9 on the remote control,
- 2) Press the TIME TEXT button, Txxx will be displayed at the top left of the screen.
- 3) Enter the desired sub-page number before the Txxx disappears. If you select sub-page 6 then you must press 0,0,0 and 6 buttons.
- 4) If in LIST STORE mode the letter 'T' will appear in the current coloured box at the bottom of the screen indicating that the sub-coded page has been set.
- 5) Press DISPLAY CANCEL to view a normal TV programme. When the desired sub-page is found, the 'FND' symbol will appear at the top left of the screen. The sub page is then available until a new page is selected or until it is cleared.
- 6) Press the TEXT button to display the found sub-page.
- 7) To clear the sub-coded page, enter a new page number or press RESET.

Note: It is not possible to select another programme during sub-page operation.



Remote Control Operation for Teletext

Please refer to the remote control diagram on page 3.

(44) Alarm.

This function can be used in TV or Teletext modes.

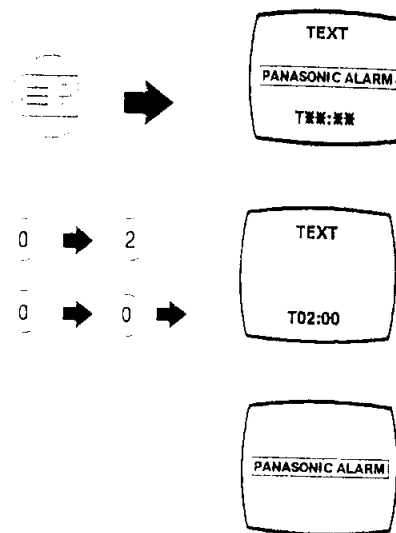
EXAMPLE: To set this alarm for two hours ahead: -

(a) Press the ALARM button.

(b) Using buttons 0-9 on the remote control, press 0,2,0,0 consecutively. The screen will show a normal TV display until after two hours when the PANASONIC ALARM page will be displayed.

NOTE: To check how much time is left until the alarm page is displayed, press the STATUS button.

To cancel this facility press the ALARM button again and press the reset button.



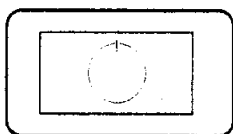
Remote Control Operation for VTR

Please refer to the remote control diagram on page 3.

This infra-red remote control is designed specifically to be used with selected Panasonic VTR's, consult your dealer for details. Some VTR's have different functions, so to ensure compatibility, please refer to the VTR instruction book or consult VTR function. The buttons for VTR operation are numbered below.

(45) Standby

Press to switch the VTR on or off for short periods.



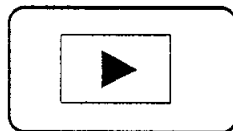
(46) Stop

Press this button to stop the tape.



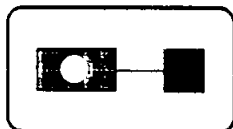
(47) Play

Press this button to playback the tape.



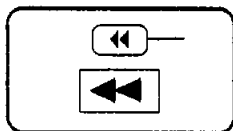
(48) Record

Press these buttons together to record.



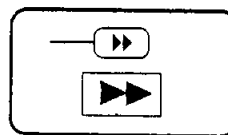
(49) Rewind/Review

Press this button to rewind the tape. In playback mode, press this button to view the picture in reverse rapidly.



(50) Fast Forward/Cue

Press this button to fast forward the tape. In playback mode, press this button to view the picture rapidly forward.



(51) Pause/Still

Press this button in playback mode, the picture will pause.



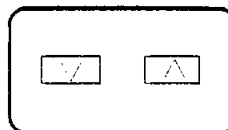
(52) Still Advance

While in the PAUSE/STILL mode press this button to advance the picture one frame at a time.

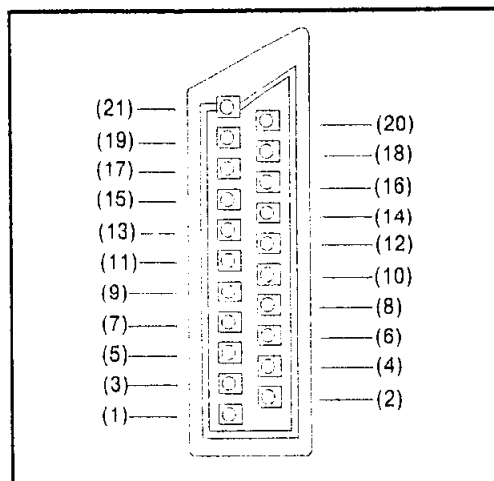


(53) Programme Up/Down

Press once to increase or decrease the programme position by one.



21 Pin Terminal Explanation



AV1	
1	Audio out.
2	Audio in.
3	Audio out.
4	Audio earth.
5	Blue earth.
6	Audio in.
7	Blue in.
8	--
9	Green earth.
10	--
11	Green in.
12	--
13	Red earth.
14	--
15	Red in.
16	Status RGB.
17	CVBS earth.
18	RGB status earth.
19	CVBS out. (video).
20	CVBS in. (video).
21	Socket earth.

Note.

1. RGB Input from a Computer or TV game via the 21 pin AV1 terminal has priority over other AV Inputs and TV programmes, i.e. the TV game Input will be viewed on the programme position selected at that time or the AV position previously selected. RGB input will not be synchronised until the TV/AV button is pressed to select AV1 mode.

Important note: RGB signal must comply with 'CENELEC' standard, ie. signal consisting of RGB, Composite video for synchronisation, STATUS RGB for switching.

2. Audio input and output on this receiver is Mono only, Pins 1 and 3 (Audio out) Right and Left on the 21 pin are connected together giving mono output.
Pins 2 and 6 (Audio in) Right and Left on the 21 pin are connected together giving mono input.

General Information

Sleep Feature

If the set is not switched off when the TV station stops transmitting at the end of the evening, it will automatically go to standby mode after 30 minutes.

Note : This function will not operate when the TV is in AV mode

Service

To obtain service please contact your local Panasonic dealer, and quote the model number and serial number (both are located at the rear of the TV).

TV Games / home Computers

Extended use of TV games or home computers with any television set can cause a permanent 'shadow' on the screen. This type of irreversible picture tube damage, can be limited by observing the following points:

- (a) Reduce the brightness and contrast levels to a minimum viewing level.
- (b) Do not operate the television set for a continuous period of time while using TV games or home computers.

This type of picture tube damage is not an operating defect, and as such is not covered by the Panasonic warranty.

Accessories: 1 remote control (TNQ8EO431) 2 x UM-3 size batteries.
1 TV Stand (TS - 2428)

Note: Certain TV functions have a last position memory, that is to say whatever level was set at the time of switch off will be the level displayed when the receiver is switched on again. See table below for list of last memory functions and no memory functions.

Last Position Memory

Programme
Volume
Brightness
Colour
Contrast
Bass
Treble

No Last Position Memory

AV1, AV2
Teletext
Sound Mute